

## A NEW SPECIES OF *WARBURGIA* FROM THE TRANSVAAL

By MRS R. POTT, Botanist of the Transvaal Museum.

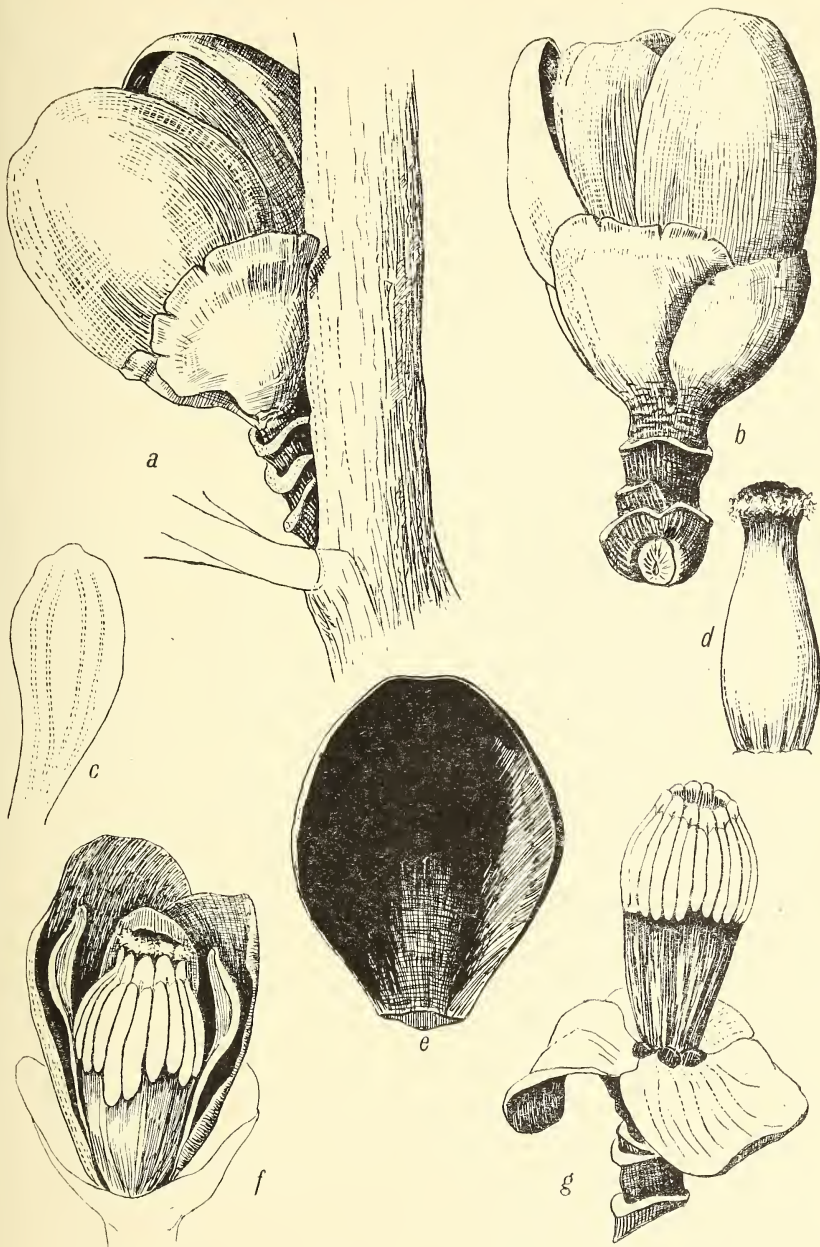
*Warburgia Breyeri* Pott n.sp.; a *W. ugandensis* Sprague, floris solitariis, ovulis placentis uniseriatim affixis recedit. Arbor 15 m. alta, cortice rugoso. Ramuli teretes, glabri, cortice striato ruguloso, lenticellis prominentibus. Folia alterna, exstipulata, subsessiles, penninervia, coriacea, glabra, supra nitidula, subtus pauce pallidiora, dense pellucido-punctata, integra, lanceolato-oblonga, 5–10 cm. longa, 1.5–2.5 cm. lata, acuta, basi attenuata, venis inconspicuis, subtus costa prominente. Flores parvi, axillares, solitarii, pedunculati, virides; pedunculus circa 2 mm. longus; bracteae circa 0.5 mm.



Text fig. 1. Flowering Branch of *Warburgia Breyeri* Pott.

longae, deciduae. Calyx persistens, sepalis 3, imbricatis, sub-orbiculatis, 2 mm. longis, 3 mm. latis, glabris, pellucido-punctatis, minute ciliatis. Petala exteriora 5, glabra, pellucido-punctata, sub-coriacea, obovata, concava, 5 mm. longa, 3 mm. lata; petala interiora 5, glabra, flavescentia, pellucido-punctata, spathulata, 4 mm. longa, 1.5 mm. lata. Tubus staminalis circa 3 mm. longus, apice decemcrenulatus; stamina 10; antherae extrorsae, 1.5 mm. longae, 1.5 mm. supra basim tubi sitae, longitudinaliter 2-valvatim dehiscentes. Ovarium oblongo-ovoideum, 2–3 mm. longum, 1 mm. diametro, glabrum, apice fimbriatum; stigma subsessile, subcapitatum, angulatum, truncatum; placentae 5, parietales, pluriovulatae, ovulis uniseriatis. Bacca immatura subglobosa, basi attenuata, 10 mm. diametro, pericarpio coriaceo ruguloso.

Hab. Transvaal, Western slope of Drakensberg, near Macoutsie River, Dr H. G. Breyer, no. 17573 in Transvaal Museum Herbarium. Flowering July and August.



Text fig. 2. Flower of *Warburgia Breyeri* Pott.

(a) Portion of stem with inflorescence. (b) Flower with peduncle. (c) Petal. (d) Pistil.  
 (e) Sepal. (f) Longitudinal section of flower. (g) Staminal tube with calyx.

Tall tree, outer bark rough, inner bark of a reddish colour. Branches terete, glabrous, with ridged bark and prominent yellowish lenticels. Leaves alternate, exstipulate, subsessile, glabrous, glossy on upper side, a little lighter at the back, densely pellucid-dotted, entire, lanceolate-oblong, 5–10 cm. long, 1.5–2.5 cm. broad, broadly-acute, attenuate to the base, veins inconspicuous, midrib prominent at the back.

Flowers solitary, small, greenish, on short, stout peduncles in the axils of the leaves; peduncle 2 mm. long with prominent scars of the deciduous, broad-based bracts. Calyx persistent; sepals 3, overlapping, roundish, 2 mm. long, 3 mm. broad, glabrous pellucid-dotted, shortly ciliate on the margin. Outer petals 5, glabrous, pellucid-dotted, rather thick, obovate, concave, 5 mm. long, 3 mm. broad; inner petals 5, much thinner and lighter of colour, glabrous, pellucid-dotted, spatulate, 4 mm. long, 1.5 mm. broad. Staminal tube overtopped by the inner petals, 3 mm. long, crenulate at the top; stamens 10; anthers sessile on upper part of tube, 1.5 mm. long, opening to the outside with longitudinal slits. Pistil enclosed in staminal tube or just protruding, glabrous, fimbriate at the top; ovary oblong-ovate; stigma subsessile, subcapitate, truncate; placentation parietal, placentae 5, ovules in single rows. Young berry roundish, attenuate to the base; skin blackish-green, leathery, wrinkled, full with glands, 10 mm. diam.

This new species of *Warburgia* is nearest *W. ugandensis* Sprague, but the flowers are solitary and the ovules in one row on the placentae. It was discovered by Dr H. G. Breyer on the Letaba expedition of the Transvaal Museum, July, 1917. The species is named in honour of the collector. The native name of this tree is "Shibaha." The inner bark has a bitter, pungent taste. It is one of the Fever-trees of the low-veld, as the natives use the bark as a remedy against malaria fever; they hold the shibaha in great esteem. Scientific investigation will soon show whether it really possesses anti-malarial properties or not.

Anatomy. The cork-cells have rather thin walls. Oil-cells are found in the palisade and spongy tissue of the leaf and in the cortex, phloem and pith of the stem. Rosette crystals are plentiful in cortex and phloem. The wood is composed of tracheids with distinct bordered pits and scalariform vessels. The many medullary rays are 1–2 cells broad. Petiole with 3 fascicular bundles.

The above-stated characteristics agree well with those given for the family of Canellaceae in Engler and Prantl's *Natürliche Pflanzen-familien*, p. 315, III Teil, VI and VI a Abteilung.